Montana Fish, Wildlife & Parks

August 30, 2000

1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
Fisheries Division
Endangered Species Coordinator
Nongame Coordinator
Missoula Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Missoula County Conservation District, 5115 Highway 93 South, Missoula, MT 59801
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Mr. Larry Kolb, 1220 Lincoln Parkway, Missoula, MT 59802

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for a Future Fisheries Project tentatively planned to restore a 2,700 foot channelized reach of Kolb Spring Creek to a more natural configuration by returning the stream to it's historic meander pattern. This proposed project is located on property owned by Mr. Larry Kolb near the town of Lolo in Missoula County.

Please submit any comments that you have by 5:00 P.M., September 30, 2000 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of this project is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Kolb Spring Creek Channel Restoration Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 which directs the Department to administer a Future Fisheries Improvement Program. The program involves physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. This project is being proposed to restore a 2,700 foot channelized reach of Kolb Spring Creek to a proper dimension, pattern and profile by returning the stream to it's historic meander pattern in most areas. The intent of this project is to improve salmonid spawning and rearing habitat to enhance recruitment to the lower Bitterroot River. Additionally, the intent is to provide thermal refuge for Bitterroot River fishes during the summer and fall and to improve the vegetation within the riparian corridor. The project site is located on property owned by Mr. Larry Kolb near the town of Lolo in Missoula County (Attachment 1).

I. Location of Project: This project will be conducted on Kolb Spring Creek located approximately 1 mile south of the town of Lolo within Township 11 North, Range 20 West, Sections 1 and 2 in Missoula County.

II. Need for the Project: Department Goal C indicates that a Fisheries Division objective is to "provide and support programs to conserve and enhance high quality aquatic habitat and protect native aquatic species." The Future Fisheries Improvement Program is a tool to help achieve that objective.

Kolb Spring Creek was straightened in the past for agricultural purposes. Additionally, past grazing practices and possible brush removal have resulted in the loss of riparian vegetation for cover, shading and bank stability. The current channel is entrenched in most reaches and instream habitat is greatly simplified. Overall, the channel has been straightened into a ditch and the only significant pools are those created at two culvert outlets. Currently, spawning and recruitment habitat is very limited for both resident and migrant species of fish. Woody vegetation within the riparian corridor also is very limited. Additionally, overflow events from Lolo Creek have resulted in areas of stream bank erosion due to the entrenched nature of the channel and the lack of woody riparian vegetation.

III. Scope of the Project:

The project proposes to restore a 2,700 foot channelized reach of Kolb Spring Creek. The proposal calls for nearly doubling the length of the current channel (lengthen to 5,517 feet) by returning the stream to it's historic meander pattern in most areas. Although the intent of the project is to use the historic meander pattern as much as possible, channel restoration also will require excavation to create an appropriate channel dimension and profile throughout the restored reach of stream. The project calls for constructing a Rosgen E-4 channel type that would provide

access to a substantial floodplain. To supplement stream bank stability and to provide for habitat diversity, the project calls for the installation a series of rootwad revetments, high stage deflector logs, log vanes and log weirs. Vegetation within the riparian corridor would be enhanced using transplants of willow clumps and sedge mats. The project also calls for fencing the entire corridor and excluding livestock to protect the riparian vegetation. Abandoned channel sections would be converted into wetlands. This project is expected to cost $91,805.00. Of this total, the Future Fisheries Improvement Program would be contributing up to $55,530.00.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Returning the existing ditched channel to it's historic meander pattern is expected to create a more healthy habitat for aquatic life by nearly doubling the length of the channel and by creating much greater environmental complexity. Expected improvements in the aquatic habitat should enhance salmonid recruitment to the lower Bitterroot River, as well as resident populations in the stream. Habitat for riparian dependent wildlife would also be improved by enhancing the riparian vegetative community through transplanting a variety of vegetation along the stream margin and by protecting the corridor with fencing to exclude livestock.

2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. To minimize turbidity, construction will occur during a low flow period and operation of equipment in the stream channel will be minimized to the extent practicable. Construction of the restored stream reach would be completed before water is turned in from the existing active channel. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota. A 310 permit will be obtained from the local Conservation District. In the long term, restoring the existing channel would reduce the sediment and nutrient contributions to downstream areas, thereby improving the overall quality of downstream waters.

3. Geology and soil quality, stability and moisture.

Soils along the stream margin would be disturbed during construction of the new channel, but would quickly stabilize following proposed re-vegetation efforts. Overall, the project is expected to reduce bank erosion and improve channel stability by returning the stream to a natural meander pattern and by providing access to the floodplain.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover would be disturbed during the period of construction. However, proposed re-vegetation efforts, in conjunction with implementing a livestock grazing exclosure, would result in an overall improvement to the riparian vegetation.

5. Aesthetics.

Aesthetics would be enhanced by restoring a channelized reach of stream to a more healthy and natural stream environment. The riparian vegetative community would be enhanced by transplanting a variety of vegetation along the margins of the channel and by fencing the riparian corridor to exclude livestock.

7. Unique, endangered, fragile, or limited environmental resources.

The Bitterroot River drainage supports both westslope cutthroat trout and bull trout. Improvements to Kolb Spring Creek may provide some benefits to westslope cutthroat trout. Although potentially beneficial, the project is not expected to have any impact on bull trout since bull trout are very scarce in the lower Bitterroot River.

9. Historic and archaeological sites

The proposed project likely will require an individual Army Corp of Engineers 404 permit. Therefore, the State Historic Preservation Office has been contacted to determine the need for compliance with the federal historic preservation regulations. The project will not begin until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational activities.

The Bitterroot River is one of the most heavily fished bodies of water in the state. The intent of the project is to improve recruitment of salmonids to the lower Bitterroot River. As a result, the recreational fishery on the river is expected to improve. The project does not intend to provide a recreational fishery on the spring creek proper since the landowner currently does not allow public access to the stream.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, this reach of Kolb Spring Creek will remain channelized and entrenched; resulting in continued bank erosion, simplified aquatic habitat and warm water temperatures. This reach of altered stream will continue to provide only minimal

recruitment of salmonids to the lower Bitterroot River. Additionally, habitat for riparian dependent wildlife will remain in a degraded condition. Recreational opportunities associated with fish and wildlife resources will remain reduced and aesthetics will continue to be impaired.

2. Conduct habitat restoration within the existing channelized stream reach

This alternative would not resolve the entrenched nature of the existing channel nor would the alternative create additional stream length. Restoration efforts commonly fail when attempted in an entrenched channel due to the inability of the stream to access its floodplain. Confined flows in an entrenched channel commonly create excessive shear stresses that wash out installed habitat structures. Overall, entrenched channels tend to be unstable.

3. The Proposed Alternative

The proposed alternative is designed to restore a 2,700 foot channelized reach of stream into a 5,500 foot reach by returning the spring creek to it's historic meander pattern. This alternative would approximately double the length of the existing channel and would greatly improve the diversity of aquatic habitat in the stream. The intent of the project is to improve spawning and rearing habitat, to provide a thermal refuge for fish from warm summer water temperatures and to improve the vegetation within the riparian corridor. This alternative would improve fish and wildlife habitat, aesthetics and water quality within the project area and would be expected to increase trout populations both in the spring creek and in the lower Bitterroot River.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA will be published on the Montana Electronic Bulletin Board.

3. Duration of comment period?

Public comment will be accepted through 5:00 PM on September 30, 2000.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
Montana Department of Fish, Wildlife and Parks
1420 East 6th Avenue
Helena, MT 59620

Telephone: (406) 444-2432

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
(406) 444-2535

ENVIRONMENTAL ASSESSMENT

Project Title Kolb Spring Creek Channel Restoration Project

Division/Bureau Fisheries Division -Future Fisheries Improvement

Description of Project The project is being proposed to restore Kolb Spring Creek to a proper channel dimension, pattern and profile by returning the stream to it's historic meander pattern in most areas. The intent is to improve salmonid spawning and rearing habitat to enhance recruitment to the lower Bitterroot River. The project site is located on property owned by Mr. Larry Kolb near the town of Lolo in Missoula County.

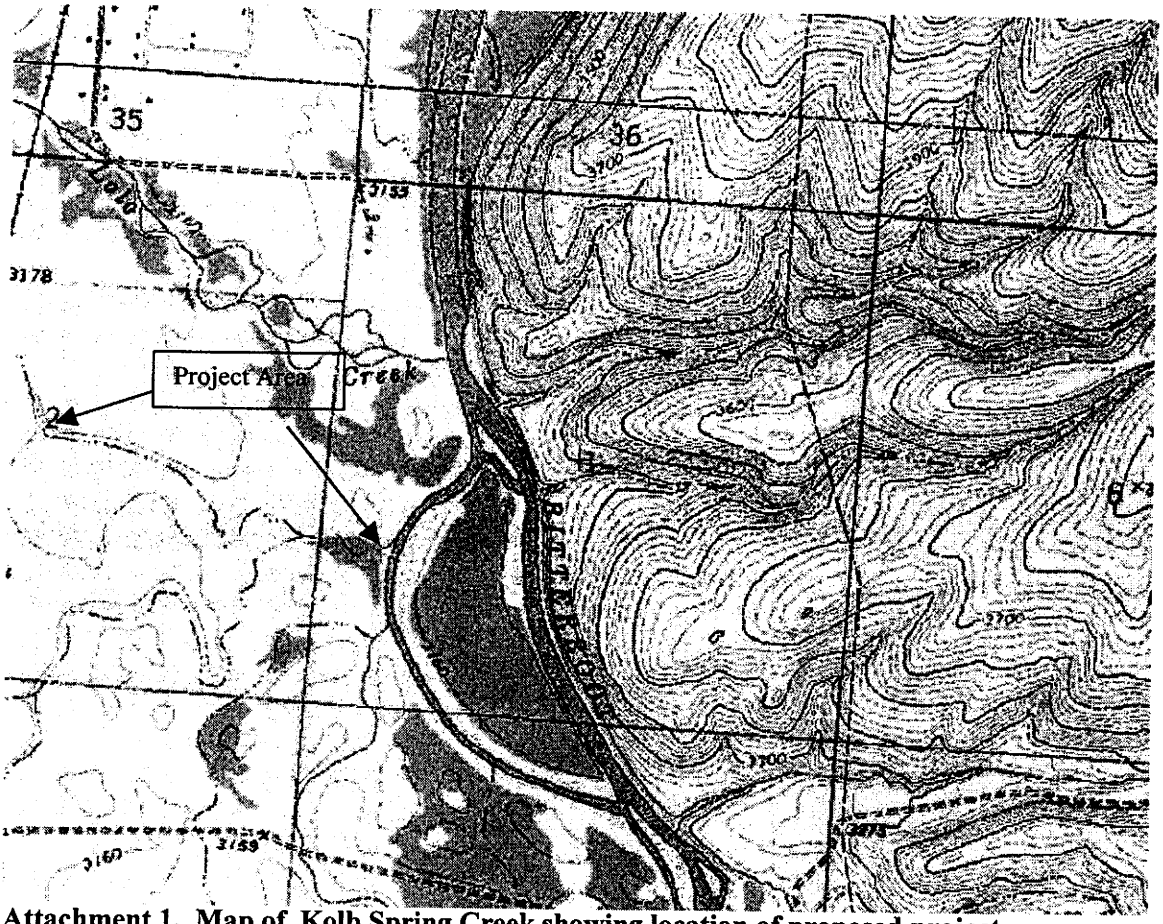
POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats		X				X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources			X			X
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		X

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping jurisdiction Missoula County Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office
Individuals or groups contributing to this EA Ladd Knotek, Montana Fish, Wildlife and Parks; Water Consulting, Inc.
Recommendation concerning preparation of EIS No EIS required.
EA prepared by : Mark Lere
Date: August 30, 2000



Attachment 1. Map of Kolb Spring Creek showing location of proposed project.